ZHADAN, V.Z., kand.tekhn.nauk

Calculation of finned conditioners in cooling and drying air,
Khol. tekh. 38 no.3:23-24 My-Je '61. (MIRA 15:1)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy
promyshlennosti.

(Air conditioning)

ZHADAN, V.Z., kand.tekhn.nauk

Approximate calculation of the finned tube extended surfaces in heat exchange. Khol.tekh. 38 no.2:28-30 Mr-Ap '61. (MIRA 14:3)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti.
(Heat--Transmission)

ZHADAN, V.Z.; SHEVELEV, V.A.

Automatic control of airtightness in sealing canned food. Kons. i ov. prom. 14 no.10:15-19 O '59. (MIRA 12:12)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti (for Zhadan). 2. Odesskiy mashinostroitel'nyy zavod imeni Kalinina (for Shevelev).

(Canning and preserving--Apparatus and supplies)
(Sealing (Technology))

SHAPOVALOV, I.F., starshiy nauchnyy sotrudnik. Prinimali uchastiyu:
ZHADAN, Ya.M., gornyy inzh.; KALITVYANSKIY, I.T., avtomekhanik.
NIKOLAYEV, V.F., otv.red.; VINOGRADOVA, G.V., red.izd-va;
IL'INSKAYA, G.M., tekhn.red.

[Manual on the control of mine rescue equipment] Posobie po proverke gornospasatel'nogo oborudovaniia. Moskva, Gos.nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1960. 125 p. (MIRA 13:6)

1. Stalinsk. Sovet narodnogo khozyaystva. Nauchno-issledovatel'skaya laboratoriya po gornospasatel'nomu delu. 2. TSentral'naya nauchno-issledovatel'skaya laboratoriya voyenizirovannykh gornospasatel'nykh chastey [TsNIL VGSCh] (for Shapovalov).
(Mine rescue work--Equipment and supplies)

ZHADAN, Ye

VAYNSHTEYN, G.; YELISEYEV, V.; SHALONKIN, B.; KASUMOV, K.; OZEROV, I.
ZHADAN, Ye.; MANUYLOV, V.; MISHIN, F.

Foremost workers taking part in the socialist competition.
Avt.transp. 35 no.9:32-33 S '57. (MIRA 10:10)
(Automobile drivers) (Highway transport workers)

ZHADAN, Z., kandidat tekhnicheskikh nauk.

[redacted]

Evaporators for refrigerators. Khol.tekh. 34 no.1:77 Ja-Mr '57.
(MLRA 10:5)

(Refrigeration and refrigerating machinery)
(Heat exchangers)

AUTHOR: Zhadan, Z., Candidate of Technical Sciences. 66-1-25/26

TITLE: Evaporators for refrigerators. (Ispariteli dlya kholodil'nykh shkafov).

PERIODICAL: "Kholodil'naya Tekhnika" (Refrigeration Engineering), 1957, No.1, p.77 (U.S.S.R.)

ABSTRACT: Foreign, particularly American, practice of producing heat exchange apparatus, particularly evaporators, from sheet aluminium is dealt with.

AVAILABLE:

Card 1/1

ZHADANKIN, P.I.

New machine tools manufactured by Gorkiy Machinery Plant. Mashinostroitel' no.3:9-10 Mr '61. (MIRA 14:3)
(Gorkiy--Machine-tool industry)

ZHADANOV, B. N.

ZHADANOV, B. N.: "The pedagogic activity of I. N. Ul'yanov and the training of children in his family." Academy of Pedagogical Sciences. RSFSR. Sci Res Inst of Teaching Methods. Moscow, 1956
(Dissertation for the degree of Candidate in Pedagogical Sciences)

SO: Knizhnaya Letopis', No 36, 1956, Moscow.

ZHADANOV, O.K. (Moskva); KIRILLOV, V.V. (Moskva); KON'KOV, V.V. (Moskva)

Processing for solving a regulation (planning and control) problem. Zhur. vych. mat. i mat. fiz. 5 no.1:150-155 Ja-F '65. (MIRA 18:4)

ZHADANOV, Yu.S.; gornyy inzh.; SERGEYEV, S.T., gornyy inzh.

Automatic water heating system for mine shower baths. Ugol' Ukr.
no.6:31 Je '60. (MIRA 13:7)
(Shower baths) (Automatic control)

GORODETSKAYA, E.G. [Horodets'ka, E.H.]; ZVONAREVA, G.N. [Zvonar'ova, H.N.];
SOFIYENKO, T.A. [Sofiienko, T.A.]; YARMOLENKO, R.A.; ZHADANOVA, R.I.

Ballistocardiography in cardiovascular pathology in children.
Fiziol. zhur. [ukr.] 8 no.5:600-608 S-O '62. (MIRA 17:11)

1. Department of Pediatrics of the Kiyev Post-Graduate Institute for Physicians and the First Children's Hospital of Shevchenko District, Kiyev.

ZHADANOVSKAYA, A. P.

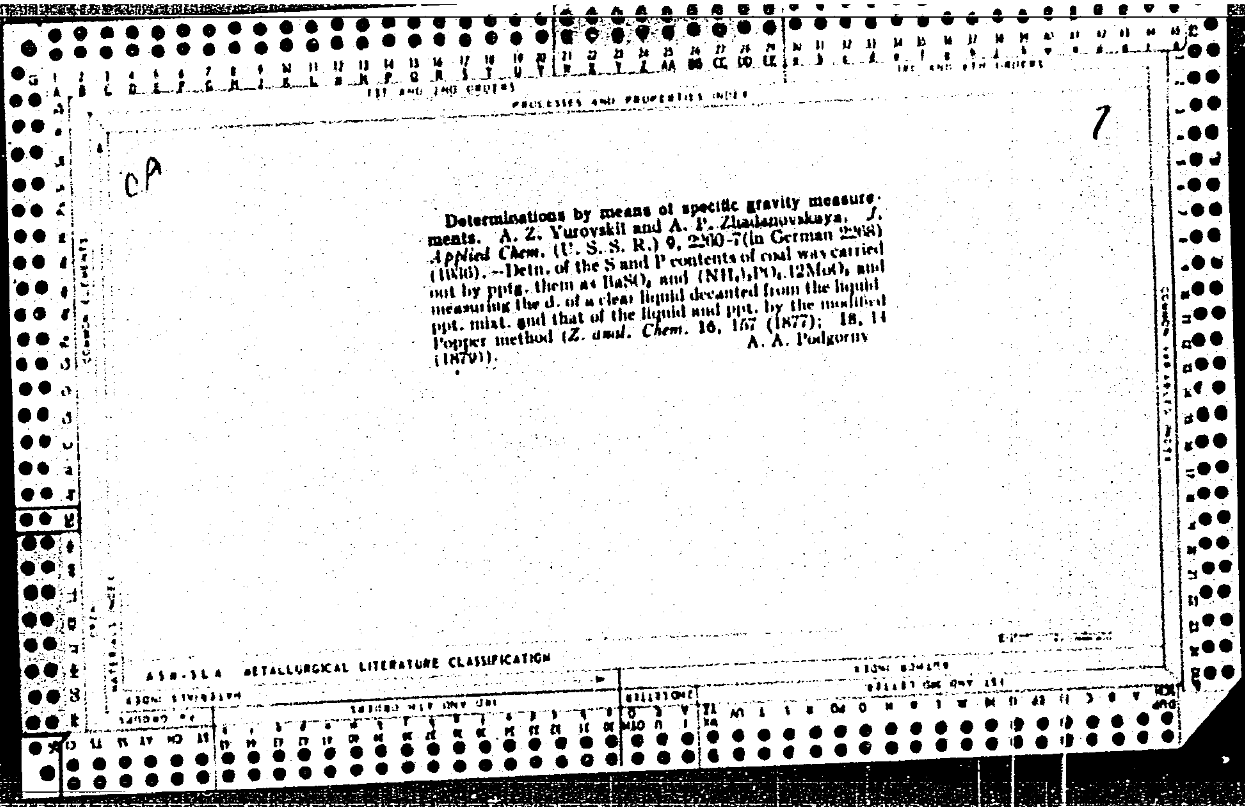
CA

21

Rapid method for determining pyritic sulfur and sulfate sulfur in coal. M. E. London, A. P. Zhadanovskaya, K. M. Goncharenko and E. B. Berger. *Coke and Chem.* (U. S. S. R.) 3, No. 8, 48-51(1933); *Chimie & industrie* 31, 651.—*Pyritic S.*—Incinerate 1 g. of coal, transfer the ash to a 150-cc. Erlenmeyer flask, add 50-60 cc. of 50% HCl, boil 15-30 min. or to decolorization of the insol. residue, filter into a 1-l. Erlenmeyer flask, wash with hot water till the washings are free from Fe (if the residue still contains Fe, digest with 50% HCl and add the soln. to the main filtrate and washings); det. Fe by Zimmermann-Reinhardt's $KMnO_4$ method, which gives pyritic S + HCl-sol. Fe, subtract HCl-sol. Fe detd. on a sep. portion, and calc. S from FeS_2. *Sulfate S and HCl-sol. Fe.*—To 1 g. coal in a 250-cc. beaker add 100 cc. of 10% HCl, heat to boiling, filter rapidly, wash with hot water till free from HCl, evap. to 100 cc., ppt. Fe with NH_4OH and det. Fe as above; in the filtrate det. sulfate S by pptn. with $BaCl_2$. Pyritic S can be obtained directly by first treating the coal with 10% HCl, filtering, ashing and proceeding as above.

A. Papineau-Couture

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



1ST AND 2ND ORDERS
PROCESSES AND PROPERTIES INDEX
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA

1

Determinations by means of specific gravity measurements. A. Z. Yurovskii and A. P. Zhdanovskaya. *J. Applied Chem.* (U. S. S. R.) 9, 2290-7 (in German 2298) (1936).—Detn. of the S and P contents of coal was carried out by pptg. them as $BaSO_4$ and $(NH_4)_3PO_4.12MoO_3$ and measuring the d. of a clear liquid decanted from the liquid ppt. mixt. and that of the liquid and ppt. by the modified Popper method (*Z. anal. Chem.* 16, 157 (1877); 18, 14 (1879)). A. A. Podgorny

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

ZHADANOVSKAYA, K.

Promotion of Tungsten by Nitrogen and Hydrogen. K. Zhadanovskaya, Korolev, and I. Mochan (*Compt. rend.* (*Dokl.*) *Acad. Sci. U.R.S.S.*, 1941, N.S.], **30**, (1), 26-28).—[In English.] It is found that thin condensed films f tungsten are most effective in catalyzing the hydrogenation of ethylene when ey contain either hydrogen in the proportion of 1 molecule to 200 molecules f metal or nitrogen in the proportion 1 : 170. The activity declines very apidly on either side of these optimum values.—N. B. V.

Lab. Chem. Phys., Leningrad Ind. Inst.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

ZHADANOVSKII, K. T.
A. S. BRUK, Stal, 1947, 7, 101-5

GERASIMENKO, N.M.; ZHADANOVSKIY, B.N.; FINELONOV, V.P.; KEL'MAN.

Eliminating the purification by sulfuric acid in the production of aromatic hydrocarbons. Khim.i tekh.topl.i masel 5 no.10:24-26 O '60. (MIRA 13:10)

1. Novokuybyshevskiy nefteperabatyvayushchiy zavod.
(Hydrocarbons) (Petroleum--Refining)

RABAN, V.; VOLOSHINSKIY, V.; ZHILA, A.; ZHADANOVSKIY, D. (Volynskaya
oblast')

For large-scale activity in inventing and efficiency promotion.
Fiz. v shkole 20 no.6:104 N-D '60. (MIRA 14:2)
(Technological innovations)

ZHADANOVSKIY, N.B.

4

S/065/61/000/004/004/011
E194/E284

AUTHORS: Gerasimenko, N. M., Yastrebov, G. I., Badyshtova, K. M., Gol'dshteyn, D. L., Pisarchik, A. N., Zhadanovskiy, N. B., Pinelonov, V. P. and Kartunov, G. S.

TITLE: Hydrofining of Lubricants

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1961, No. 4, pp. 27-31

TEXT: Lubricants produced at modern refineries running on eastern high-sulphur crudes are finished with earth but the lubricants obtained are not of satisfactory quality, particularly in respect of colour, and the yield is low. Accordingly, VNII NP and GrozNII have investigated catalytic refining of lubricants in the presence of hydrogen (hydrofining) to replace earth treatment. Various distillate and residual lubricating oils produced from sulphurous crudes by phenol and furfurol extraction were hydrofined under laboratory conditions. The work showed that hydrofining with aluminium-cobalt-molybdenum catalyst considerably improved the colour, somewhat improved the viscosity index and

Card 1/5

oxidation stability and reduced the coke number. There was some reduction in viscosity and increase in pour point. Depending upon the properties of the feed the output of hydrofined oil was 98-99.5%. The Novokuybyshevskiy neftepererabatyvayushchiy zavod (Novokuybyshevsk refinery), together with the Kuybyshev NII NP organized a plant trial on hydrofining of various de-waxed lubricating oil raffinates from sulphurous crudes. Representatives of VNII NP, GrozNII and Giprogrozneft' participated in the trials. The lubricating oils were hydrofined on a reconstructed plant for hydrofining of diesel fuels. Tests were made on two distillates, one a spindle and the other a machine oil, and one residual oil. The de-waxed feed passed to heat exchangers where it was heated by finished oil issuing from the reactor and was then finally heated to temperature in a furnace before passing to the reactor. Before entering the furnace the feed was mixed with hydrogen containing gas and was then passed to the top of columns loaded with aluminium-cobalt-molybdenum catalyst. On leaving the column the product passed through the heat exchangers, thence to a gas

Card 2/5

separator and the finished product was vacuum stripped. The main characteristics of the catalyst are given. The oils produced were spindle oil, machine oil and residual oil with viscosity of 20.66 centistokes at 100°C. The results of hydrofining and of earth treatment are compared in Table 3. It will be seen that the hydrofined oils have much better colour, lower coke number, lower sulphur content, higher viscosity index but that there is some loss of viscosity and 1-2° higher pour point. Preliminary technical and economic calculations indicate that the capital costs of constructing hydrofining and earth treatment plant is about the same but with hydrofining running costs are about 32% less than with clay treatment. There are 1 figure and 3 tables.

ASSOCIATION: NK NPZ

Card 3/5
3

L 22483-66 EWT(m)/T DJ

ACC NR: AP6007929 (A) SOURCE CODE: UR/0065/66/000/003/0030/0032

AUTHOR: Chesnokov, A. A.; Badyshtova, K. M.; Konyukhova, M. V.; Ivankina, E. B.; Zhadanovskiy, N. B.

32
B

ORG: KNIINP; Novokuybyshev Petrochemical Works (Novokuybyshevskiy neftekhimicheskiy kombinat)

TITLE: Antioxidative stability of hydrofined transformer oil

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 3, 1966, 30-32

TOPIC TAGS: transformer oil, petroleum product, petroleum refining, oxidative degradation, oxidation

ABSTRACT: The oxidative stability of hydrofined paraffin-free transformer oil was investigated using a sample with the following characteristics: kinematic viscosity (in cSt) at 20°C--24.45, at 50°C--8.01; 0.14 percent precipitate after oxidation treatment; acid number after oxidation (in mg KOH/g)--0.81; flash point in a closed crucible--150°C; pour point-- -43°C; transparent at +5°C; density at 20°C--0.8840; refractive index n_D^{20}--1.4980; sulfur content--0.18%. The oil was chromatographically separated into 6 narrow cuts. Several blends were prepared and their characteristic indices were compared with those of the starting transformer oil. It was found that reduction in the content of the high molecular weight aromatics results in lower antioxidative

UDC: 665.521.54

2

Card 1/2

L 22483-66

ACC NR: AP6007929

0

stability of the transformer oil. Antioxidative stability increased with reduction in gum content in the gransformer oil. Orig. art. has: 3 tables.

SUB CODE: 21, 11 SUBM DATE: 00/ ORIG REF: 006/ OTH REF: 001

Card 2/2 bK

AGAFONOV, A.V.; ABAYEVA, B.T.; OKINSHEVICH, N.A.; UZUNKOYAN, P.N.; FINELONOV, V.P.; LYSAKOV, G.A.; ZHADANOVSKIY, N.B.; FEYGIN, S.A.; RZHEVSKIY, I.S.

Obtaining raw stock for the production of active carbon black by extraction with the selective solvents of the gas oils of catalytic cracking. Khim. i tekh. topl. i masel 9 no.7:36-39 Jl '64. (MIRA 17:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva.

ZHADANOVSKIY N.B.

Operating experience of a hydrofining unit. Khim.i tekh.topl.i masel 5 no.8:57-63 Ag '60. (MIRA 13:8)

1. Novokuybyshevskiy nefteperarabatyvayushchiy zavod.
(Petroleum refineries--Equipment and supplies)

SOV/65-58-8-8/14

AUTHOR: Zhadanovskiy, N. B.

TITLE: Investigation of a Plant for Producing Hydrogen by the Catalytic Conversion of a Hydrocarbon Gas with Water Vapour. (Opyt raboty ustanovki po polucheniyu vodoroda metodom kataliticheskoy konversii uglevodorodnogo gaza s vodyanym parom.)

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr.8. pp. 38 - 44. (USSR).

ABSTRACT: The crude gas is supplied into the plant and divided into two currents: a current of heating gas and the investigated gas. The latter, together with 20% solution of ethanolamine (absorbent) is led into the lower part of the absorber and then mixed with a small quantity of vapour; it is heated to 460°C. After catalytic desulphurisation it enters a gas heat exchanger, is cooled in a reflux condenser and mixed again with ethanolamine; the gas then passes into the conversion chamber, and from there into the intertubular space of the heat exchanger. By heating the mixture of gas and vapour in the tubes to 815°C hydrogen and CO are formed. After leaving the conversion chamber the gas is quickly cooled to 400°C and passed into the lower part of the convertor (figure on page 39). By contacting the

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SOV/65-58-8-8/14

Investigation of a Plant for Producing Hydrogen by the Catalytic Conversion of a Hydrocarbon Gas with Water Vapour.

gas in the absorber with monoethanolamine almost complete absorption of CO_2 is achieved. After cooling of this gas current the remainder of the CO_2 is separated in the second stage of absorption. The third stage is analogous to the second stage of the process. Various steps in the absorption and desorption stages are described. The fractional composition of the initial gas, the percentage of olefins and sulphur, which determine the suitability of the gas for processing, are given in Table 1. An iron-chrome catalyst of the following composition was found to be most satisfactory for the decomposition of the sulphur-containing raw material:

Fe_2O_3 - 72.55%, Cr_2O_3 - 6.75%, CuO - 7.70%, H_2 - 13%

Table 2 shows the composition of the catalyst used during the conversion of the hydrocarbon gas. The composition of a special catalyst, recommended by GIAP, used for the conversion of gases containing up to 10% olefins, is given on page 42. Iron-chrome catalysts were also used for the conversion of CO to CO_2 (Table 3). Table 4: the material-

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Investigation of a Plant for Producing Hydrogen by the Catalytic Conversion of a Hydrocarbon Gas with Water Vapour. SOV/65-59-8-8/14

equilibrium of the conversion reaction of hydrocarbon gases to H_2 and CO_2. Certain modifications of the plant when used for industrial purposes are discussed. Table 5 gives a cost estimate of the process. There are 5 Tables and 1 Figure.

ASSOCIATION: Novokuybyshevskiy neftepererabatyvayushchiy zavod. (Novokuybyshevsk Petroleum Refining Institute).

1. Hydrogen--Production 2. Hydrocarbons--Catalysis 3. Water vapor--Applications

Card 3/3

S/065/60/000/008/010/010/XX
E030/E112

AUTHOR: Zhadanovskiy, N.B.

TITLE: Experiments on Running a Hydrofining Unit

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1960, No. 8, pp. 57-63

TEXT: An experimental type of hydrofiner has been operated successfully, and recommendations are made about the construction of future units. The hydrofiner desulphurizes straight run distillates obtained from high sulphur crudes in order to produce diesel oil, light gas oil, and aviation kerosines. The reactor conditions were 30-40 atmospheres pressure, 350-395 °C temperature, and 1.3-1.5 v/v/hour feedstock space velocity. The sulphur was removed in a 15% monoethanolamine solution. The desulphurized output was 96.5%-98% of input, gas production of 0.8-1.0%, and losses were 0.6-2%. For a gas oil of 0.78 wt.% sulphur content, the output had 0.034% sulphur content and 53 cetane number, and for a 1.28% sulphur gas oil feedstock the output had 0.14% sulphur. The sulphur content of a diesel oil was reduced from 1.28% to 0.14%, and for an aviation kerosine type TC-1 (TS-1) from 0.0145%

Card 1/2

S/065/60/000/008/010/010/XX
E030/E112

Experiments on Running a Hydrofining Unit

(mercaptan) to 0.0002%. Very strict process control is necessary on liquid, vapour, gas, and feedstock levels. The use of a cold (40-45 °C) gas separator in addition to the usual separator gives satisfactory hydrogen economy. The catalyst should be fixed bed, with a suitably designed reactor. The furnace design is satisfactory, but horizontal rather than vertical heat exchangers should be used. In order to conserve catalyst activity and reduce the pressure drop across the reactor, hydrogen-rich gas should be circulated for 4-6 hours every 400-600 hours. For feedstock sulphur contents up to 1.0% the catalyst should be regenerated every 2000-3000 hours; this, together with maintenance, occupies about 12 days (12 to 15 days in winter). An operating cycle is suggested, with 55% plant utilization.
There are 1 figure and 3 tables.

ASSOCIATION: NK NPZ

Card 2/2

ZHADANOVSKIY, N.B.

Operation of a plant for the manufacture of hydrogen by means of catalytic conversion of a hydrocarbon gas with steam. Khim. i tekh. topl. i masel. 3 no.8:38-44 Ag '58. (MIRA 11:9)

1. Novokuybyshevskiy neftepererabatyvayushchiy zavod. (Hydrogen) (Hydrocarbons)

ZHADANOVSKIY, N.B

USSR/Chemical Technology - Chemical Productis and Their Application. Treatment of Natural Gases and Petroleum. Motor and Jet Fuels. Lubricants. I-8

Abs Jour	: Ref Zhur - Khimiya, No 1, 1958, 2565
Author	: Goldshteyn, D. XX L, Shnayder, G. S., Osipov, L. N., Cherenkov, A. A., Al'tshuler, A. G., Ryzhkova, Ye. M., Zhadanovskiy, N. B.
Inst	: -
Title	: Hydro-Purification of Sulfur-Containing Petroleum Products in an Industrial Unit.
Orig Pub	: Khimiya i tekhnol. topliv i masel, 1957, No 6, 36-41

Abstract : Presentation of data on hydro-purification, in an industrial unit, over an Al-Co-Mo catalyst, of a direct distillate obtained from a mixture of sulfur-containing petroleum varieties (SP), light gas oil of catalytic cracking 200-500° fraction (LG) and their mixture (M) at a 1:1 ratio. Temperature of hydro-purification 380-395°, pressure 40 ± atmospheres gauge pressure. As a result the

S-content was lowered from 0.97-0.92 to 0.03-0-05% in the case of SP, from 1.26 to 0.06% in the case of IG, and from 1.05 to 0.05% in the case of M. Hydro-purification ensures production of good diesel fuel. Total expeniture of H_2 amounted to 0.38% by weight with SP and 0.71% by weight with IG. During hydro-purification of 0.3% gasoline are formed. After 8000 hours of operation the catalyst had not lost its activity. The catalyst is readily regenetated. Corrosion of equipment by action of H_2S and H_2 is noted.

ZHADANOVSKIY, N.B.

GOL'DSHTEYN, D.L.; SHNEYDER, G.S.; OSIPOV, L.N.; CHERENKOV, A.A.; AL'TSHULER, A.Ye.;
RYZHKOVA, Ye.M.; ZHADANOVSKIY, N.B.

Hydrofining of sulfur petroleum products in an industrial installation. Khim.i tekh.topl.i masel no.6:36-41 Je '57. (MLRA 10:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva i Ogneftezavody.

(Petroleum--Refining)

ZHADANOVSKIY, N.B.

AUTHORS: Cherenkov, A. A., Al'tshuler, A. E., Ryzhkova, E. M., Gol'dshteyn, L. D., Shnayder, G. S., Osipov, L. N., and Zhadanovskiy, N. B. 65-6-6/13

TITLE: Hydropurification of sulphurous petroleum products on an industrial installation. (Gidroochistka sernistykh nefteproduktov na promyshlennoy ustanovke).

PERIODICAL: "Khimiya i Tekhnologiya Topliva i Masel" (Chemistry and Technology of Fuels and Lubricants) 1957, No. 6, pp 36-41 (USSR).

ABSTRACT; It is expected that hydropurification of sulphurous petroleum products will be widely used in the U.S.S.R. in the near future. On the basis of data on the process obtained by VNII NP and IGN NII, an industrial plant was designed and built by Giproneftezavod on one of the refineries. The plant is described (fig. 1). The process is carried out using alumo-cobalt-molybdenum catalyst (developed by VNII NP) and hydrogen (99%), obtained by catalytic conversion ofhydrocarbon gases. Straight run distillates and secondary products are being treated to produce Diesel fuel (GOST 4749-49). Plant operating conditions are given in table 1 and the results of purification of straight run distillate from a mixture of Mukhanovskoy, Tuymazinskoy-Devonskoy and Bavlinskoy crude oils, light gas oil from Hydropuri-

Card 1/3

fication of sulphurous petroleum products on an industrial installation. (Cont). 65-6-6/13

catalytic cracking (from 200-500°fraction) and a 1:1 mixture of the above two distillates in table 2. The degree of desulphurisation 95.2-95.8%. The analysis of gases obtained during hydropurification is given in table 3. The circulating gas before the absorber (with monoethanol-amine) contained 0.7-0.9 volume % of hydrogen sulphide, after the absorber -0.1%. The mean balance of the prod-ucts of hydropurification is given in table 4. Hydrogen consumption for straight run distillate was 0.38 wt % and for gas oil from catalytic cracking -0.71 wt %. Hydrogen used for the reaction was 0.27% and 0.60% respectively. The sulphur balance is given in table 5. Up to 0.03% of H_2S calculated on the raw material used is carried out with treated fuel and is removed by washing with 2.5-4% NaOH solution. The alkali consumption 0.1 kg per ton of Diesel fuel. The working period of the catalyst without regenera-tion is 800 hrs. The regeneration of the catalyst is carried out at the temperature not exceeding 550° under 40 atm. pressure with a mixture of an inert gas with air. Initial oxygen concentration 0.2-0.25 Vol % and at the end of the regenerating period is increased to 1.4%. When the main

Card 2/3

Hydropurification of sulphurous petroleum products on an industrial installation. (Cont.) 65-6-6/13

part of the "coke" was burned out, the remaining part was removed by increasing oxygen concentration to 2% and preheating the gas to 520-550 C (2 hours). Total duration of the regeneration process 20 hours. The initial activity of the catalyst is completely restored. When the plant was stopped for inspection it was found that the upper layer of the catalyst was covered with iron sulphide. Accumulations of iron sulphide were found in various places, i. e., the corrosion of the apparatus was noticeable. The parts of the apparatus containing H_2S and H_2 at high temperatures were made from steel X5M, the remaining part from mild steel. Apparently the corrosion resistance of X5M steel was insufficient. The precipitation of iron sulphide on the catalyst has no apparent influence on its activity. There are 5 tables and 1 figure.

ASSOCIATION:: VNII NP; Orgneft).

AVAILABLE:

Card 3/3

GERASIMENKO, N.M.; YASTREBOV, G.I.; BODYSHTOVA, K.M.; GOL'DSHTEYN, D.L.;
PISARCHIK, A.N.; ZHADANOVSKIY, N.B.; FINELONOV, V.P.; KARTUNOV,
G.S.

Hydrofining of oils. Khim.i tekh.topl.i masel no.4:27-31 Ap '61.
(MIRA 14:3)

1. Novokubyshevskiy neftepereabatyvayushchiy zavod.
(Lybrication and lubricants)

GERASIMENKO, N.M.; ZHADANOVSKIY, N.B.; FINELONOV, V.P.; TITSKAYA, B.F., ved. red.; BASHMAKOV, G.M., tekhn. red.

[Hydrorefining of petroleum products]Gidroochistka nefteproduktov. Moskva, Gostoptekhizdat, 1962. 131 p. (MIRA 16:2)
(Petroleum--Refining)

ZHADANOVSKIY, N.B. 14

RYSAKOV, M.V., GOLDSHTEYN, D.L., GUSENKOVA, YE.A., ALFINOVA, E.A., BOROVAYA, M.S., PUCHKOV, N.G., KAZANSKIY, V.L., BADYSHTOVA, K.M., ROGACHEVA, I.M., CHESNOKOV, A.A., DENISENKO, K.K., ALTSHULER, A.G., GERASIMENKO, N.M., YASTREBOVA, O.I., ZHADANOVSKIY, N.B.

Production of High-grade petroleum oils and waxes by hydrogenation.

Report to be submitted for the Sixth World Petroleum Congress, Frankfurt, 16-26 June 63 [illegible] zavod (Novokuybyshev [illegible] Plant)

SUBMITTED: 00 ENCL: 00 SUB CODE: TP

8

L 45674-66 EWT(m)/T WE
ACC NR: AP6023622 SOURCE CODE: UR/0318/66/000/004/0012/0015

AUTHOR: Agafonov, A. V.; Osipov, L. N.; Rogov, S. P.; Uzunkoyan, P. N.; Finelonov, V. P.; Zhandanovskiy, N. B.; Perezhigina, I. Ya.; Kol'man, I. V.; Pisarchik, A. N.; Afanas'yev, V. I.; Khavkin, V. A.; Laz'yan, N. G. 44

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ORG: All-Union Scientific Research Institute of Petroleum Refining (Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti); Novokuybyshev Petroleum Refinery (Novokuybyshevskiy neftepererabatyvayushchiy zavod) B

TITLE: Experience with catalytic hydrocracking of vacuum distillate on the hydrofining assembly of the Novokuybyshev Petroleum Refinery

SOURCE: Neftepererabotka i neftekhimiya, no. 4, 1966, 12-15

TOPIC TAGS: catalytic cracking, petroleum product, gas oil fraction, diesel fuel, gasoline

ABSTRACT: The VNIINP has developed a variant of the process for producing diesel fuel involving one-step hydrocracking of sulfur-containing vacuum distillates on an aluminum-cobalt-molybdenum catalyst. The results of laboratory experiments with this variant were successfully applied at the experimental industrial hydrofining assembly of the Novkuybyshev Petroleum Refinery. The operation of the hydrocracking assembly is described. The feed stock for the plant hydrocracking was vacuum gas oil obtained from distillation of sulfur feed stock. Distillation of the hydrogenate produced:

Card 1/2 UDC: 665.644.2.048.5:665.658.2

L 45674-66

ACC NR: AP6023622

diesel oil which met all the requirements of GOST 4749-49 for DL grade; a gasoline fraction characterized by a low sulfur content (0.002-0.03), a relatively heavy fractional composition (melting range 120-180°), and a low octane number (42), and is recommended as feed stock for catalytic reforming; the gaseous products methane (49.2 wt. %), ethane (29.4%), propane (17.8%) and butanes (3.65). The residue of the distillation of fuel fractions is recommended as feed stock for catalytic cracking. It is concluded that the hydrocracking of vacuum gas oil on the hydrofining assembly of NKNPZ confirmed the results of work carried out by the VNIINP on pilot plants for the purpose of designing high-capacity units. Orig. art. has: 1 figure and 2 tables.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 003

Card 2/2 fv

ZHADANOVSKIY, N.

USSR/Chemical Technology - Chemical Products and Their Application. Treatment of Natural Gases and Petroleum. Motor Fuels. Lubricants, I-13

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62583

Author: Zhadanovskiy, N.

Institution: None

Title: Means of Improving Operation of AVT Units

Original Periodical: Novosti neft. tekhniki, Neftepererabotka, 1954, No 6, 3-8

Abstract: A number of measures have been worked out for improving the operation of AVT units, and aimed at maximum utilization of internal reserves. Use of a heat carrier coil for preheating of gasoline-stripped petroleum made possible to increase output of units by 5-7% and attain large savings. The following has been effected: (1) Vacuum distillation of mazut in fuel AVT without preheating of the mazut in the furnace, and utilizing the latter for preheating gasoline-stripped petroleum; (2) Repairs of the atmospheric column

Card 1/2

USSR/Chemical Technology - Chemical Products and Their Application. Treatment of Natural Gases and Petroleum. Motor Fuels. Lubricants, I-13

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62583

Abstract: condenser and evaporator without discontinuing operation of atmospheric part of the unit; (3) Utilization of the gas from AVT unit in furnace fire chambers; (4) Additional lining of asphalt cooling unit; (5) Reduction in expenditures of reagents for the prevention of hydrochloric acid corrosion by combined use of calcined and caustic soda.

Card 2/2

KAZANSKIY, V.L.; ATANAZEVICH, Ye.I.; VOLKOVA, S.A.; BOCHAROV, I.V.;
UZUKOYAN, P.N.; ZHADANOVSKIY, N.V.; FINELONOV, V.P.

Use of the hexane fraction from the central gas-fractionation plant (TSGFU) as raw material in the catalytic reforming systems. Khim. i tekh. topl. i masel 10 no.10:6-7 O '65.

(MIRA 18:10)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut neftyanoy promyshlennosti, Kuybyshev, i Novokuybyshevskiy neftepererabatyvayushchiy zavod.

EYRKIN, P.; ZHADAYEV, V.

Characteristics of the design and maintenance of the GAZ-53 and GAZ-66 engines. Avt. transp. 43 no.11:43-46 N '65.
(MIRA 18:12)

1. Gor'kovskiy avtomobil'nyy zavod.

ZHADAYEV, V.G.; BYDEROVSKIY, S.I.

The KS-1m combined equipment for sinking mine shafts. Biul. tekh. ekon. inform. no.9:3-6 '59. (MIRA 13:3)
(Shaft sinking)

LEVENETS, N.P.; SAMARIN, A.M.; SEMIKIN, I.D.; KAZAKOV, V.E.; BEMBINEK, Ye.I.; PANYUKHNO, L.G.; SVINOLOBOV, N.P.; AVERIN, S.I.; SMIRNOV, V.M.; ZELENSKIY, V.D.; LAYKO, B.G.; TISHCHENKO, O.I.; OKHRIMOVICH, B.P.; DANILOV, A.M.; TISHKOV, Yu.Ya.; PANOV, M.A.; MARKELOV, A.I.; PETROV, A.K.; VASILEVSKIY, P.A.; PASYUK, K.I.; NESTEROV, V.I.; KHRUSTAL'KOV, L.A.; GLAZKOV, V.S.; MAKAGON, V.G.; FOMIN, G.G.; TRISHCHENKO, V.D.; KORZH, V.P.; SUYAROV, D.I.; ARSEYEV, A.V.; PAVLYUCHENKO, A.A.; ZHADAYEV, V.G.; KONDORSKIY, R.I.; MOROZOVA, I.A.; KOCHETOV, V.V.; PRUZHINER, V.L.; MALEVICH, I.A.; MALIOVANOV, D.I.; ZAKOVRYASHIN, I.I.; NOVSKIY, I.S.; NOVIKOVA, V.P.; GRISHIN, K.N.; MOSKOVSKAYA, M.L.; KORNEYEV, B.M.

Inventions. Met. i gornorud. prom. no.3:75-76 My-Je '64.
(MIRA 17:10)

Zhadayeva, D.A.

AUTHOR: Shvarts, D.A. and Zhadayeva, D.A. 121-2-15/20

TITLE: The use of gas carburising in the Gorki Milling Machine Manufacturing Plant. (Primeneniye gazovoy tsementatsii na Gor'kovskom Zavode Frezernykh Stankov)

PERIODICAL: "Stanki i Instrument" (Machine Tools and Tools) 1957, No.2, pp. 38 - 39 (U.S.S.R.)

ABSTRACT: Details of the gas carburising process are discussed including the properties of the carburising agents, the comparison between the different carburisers, methods of determining the depth and properties of the carburised layer and intensified fuel supplies to increase the rate of carburisation, the analysis of the exhaust gas as a measure of the carburising operation. Criticisms of existing Soviet carburising furnace designs are made. Methods of protection of surfaces against carburising are discussed. After many tests a paste is recommended consisting of liquid glass, potassium chromate, K_2CrO_4 potash (K_2CO_3) soda (Na_2CO_3), marshallite and ground white fire-resisting clay. A method of preparation is given. There are 2 graphs and 2 tables.

AVAILABLE:

1/1

ZHADAYEV, F.

Gor'kiy Hydroelectric Power Station

On the Gor'kiy construction project. Ogonek 30 no. 39, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. UNCLASSIFIED.

ZHADAYEV, G. S.

"A Semiautomatic Machine for Restoring Side Milling Cutters and Heller Saws" Stanki i Instrument 10, No. 5, 1939

[redacted] Report U-1505, 4 Oct 1951.

ZHADAYEV, V.

ZHADAYEV, V., agronom.

[redacted]

Where the first rural electric power plant was built. Sel'. stroi. 12 no.11:4-6 N '57. (MIRA 10:11)

1. Moskovskoye oblastnoye upravleniye sel'skogo khozyaystva.
(Rural electrification)
(Volokolamsk District--Electric power plants)

ZHADAYEV, V.

ZHADAYEV, V., agronom; KUZNETSOV, S.

Record-breaking yield of flaxseed and fiber. Nauka i pered. op. v sel'khoz. 8 no.1:25-27 Ja '58. (MIRA 11:2)
(Flax)

ZHADAYEV, V.G., inzh.

Rated capacity of mining grab buckets. Shakht. stroi. 4 no.3: 9-12 Mr '60. (MIRA 13:11)

1. TSentral'nyy nauchno-issledovatel'skiy institut Podzemshakhtostroy. (Ore handling--Equipment and supplies)

BUBLIKOV, Yevgeniy Vladimirovich, inzh.; VINARSKIY, Yerim Naumovich, inzh.; DANCHICH, Valeriy Valerianovich, inzh.; DOKUKIN, Oleg Semenovich, inzh.; LINKOV, Aleksandr Viktorovich, inzh.; TELEPNEV, Dmitriy Yakovlevich, inzh.; FEDOROV, Sergey Vasil'yevich, inzh.; FEDOROV, Georgiy Dmitriyevich, inzh.; YAKUSHIN, Nikolay Petrovich, kand.tekhn. nauk, inzh.; ZHADAYEV, V.G., otv.red.; SMIRNOV, L.V., red.izd-va; SABITOV, A., tekhn.red.

[Selection of equipment for vertical shaft sinking] Vygor oborudovaniia dlia prokhodki vertikal'nykh stvolov shakht. Moskva, Ugletekhizdat, 1959. 251 p. (MIRA 12:8)

1. Sotrudniki Ukrainskogo Nauchno-issledovatel'skogo instituta organizatsii i mekhanizatsii shakhtnogo stroitel'stva (UkrNIIOMShS) (for all except Zhadayev, Smirnov, Sabitov).

(Shaft sinking) (Mining machinery)

BOCHVAR, A.A.; ZHADAYEVA, O.S.

Corresponding Member, Acad. of Sci., USSR (-1944-)

Institute of Machine Studies, Acad. of Sci., USSR, Ministry of Nonferrous Metals & Gold (-1944-)

"Microstructure of Hypoeutectic and Hypereutectic Alloys of Real Systems." Iz. Ak. Nauk SSSR, Otdel, Tekh. Nauk, No. 4-5 1944

BR 52059019

BOCHVAR, A.A.; ZHADAYEVA, O. S.

Institute of Machine Studies, Acad. Sci. USSR (-1945-)

Corresponding Members, Acad. of Sciences USSR (-1945-)

"Analysis of Structural Components of Casts and Aluminum-Silicate Dual Alloys by the Micro-Hardness Method," Iz. Ak. Nauk SSSR, Otdel. Tekh. Nauk, Nos. 10-11, 1945.

BR-52059019

BOCHBAR, A.A., akademik; ZHADAYEVA, O.S.

[redacted]

Variation of the microhardness of metals in relation to the depth of penetration of an indentor and the condition of the surface layer. Izv.AN SSSR Otd.tekh.nauk no.3:341-348 '47. (MLRA 6:12)

1. Institut metallurgii im. A.A.Baykova Akademii nauk SSSR. 2. Institut mashinovedeniya Akademii nauk SSSR. (Metals--Testing)

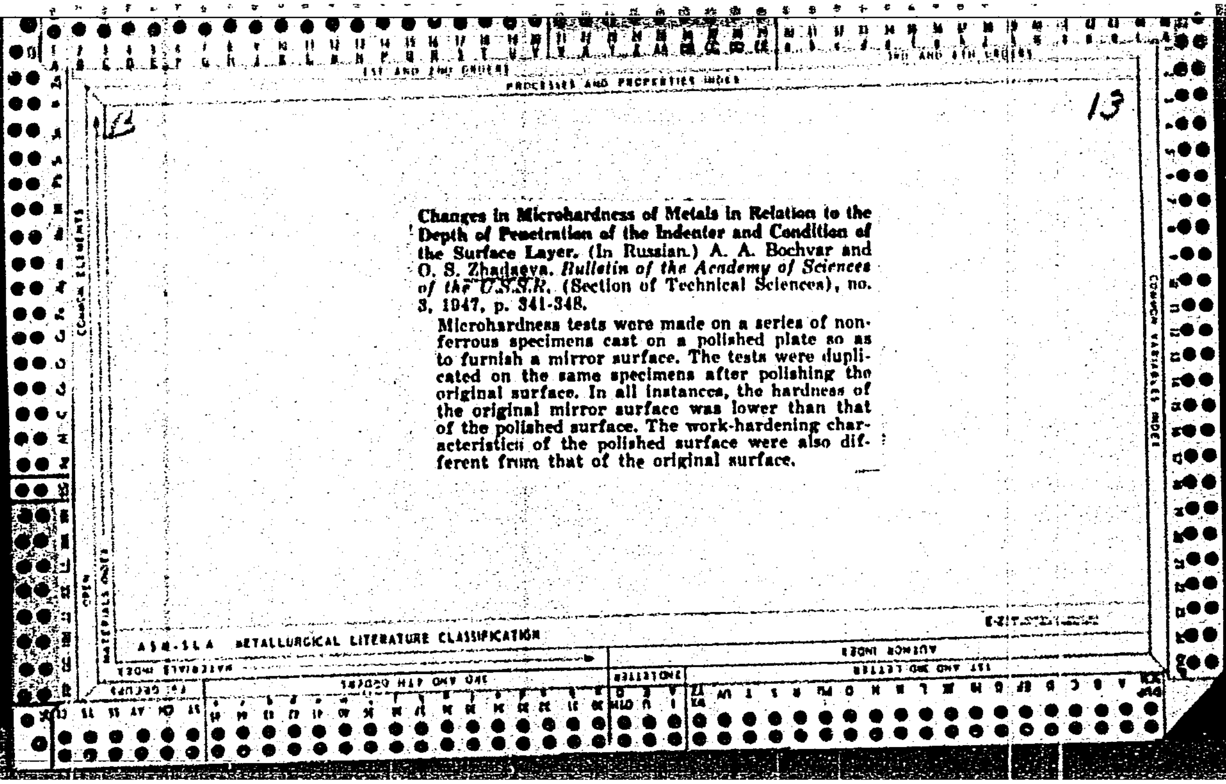
ZHADAYEVA, O. S.

Nuclear Sci. Abs.
V-8 Jan/15/1954
Mineralogy Metallurgy
and Ceramics

Struc 3
2

DISTRIBUTION OF MICROHARDNESS VALUES WITHIN A SINGLE CRYSTALLINE GRAIN OF METAL. A. A. Bochvar and O. S. Zhadaeva. Translated from Izvest. Akad. Nauk S.S.S.R., Otdel. Tekh. Nauk, 419-24(1947). 6p. (AERE-Trans-11/3/5/350)

The distribution of microhardness values was studied in (1) pure electrolytic Cu in the cast state, (2) the same in the deformed and subsequently annealed state, (3) alpha Cu-Zn homogeneous solid solutions extruded at high temperature, and (4) cast, very pure Al. The boundaries of the individual grains were revealed on the polished surface of the samples by preliminary etching of the individual grains, and impressions were made with a diamond pyramid under a load of 2 g in parallel rows at definite equal intervals within a single rather large grain. After a fairly large number of impressions, measurements were made of the diagonals, the microhardness was calculated, and graphs were constructed of microhardness along a rectilinear sector within the grain. (L.M.T.)



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Changes in Microhardness of Metals in Relation to the Depth of Penetration of the Indenter and Condition of the Surface Layer. (In Russian.) A. A. Bochvar and O. S. Zhadaeva. *Bulletin of the Academy of Sciences of the U.S.S.R.* (Section of Technical Sciences), no. 3, 1947, p. 341-348.

Microhardness tests were made on a series of nonferrous specimens cast on a polished plate so as to furnish a mirror surface. The tests were duplicated on the same specimens after polishing the original surface. In all instances, the hardness of the original mirror surface was lower than that of the polished surface. The work-hardening characteristics of the polished surface were also different from that of the original surface.

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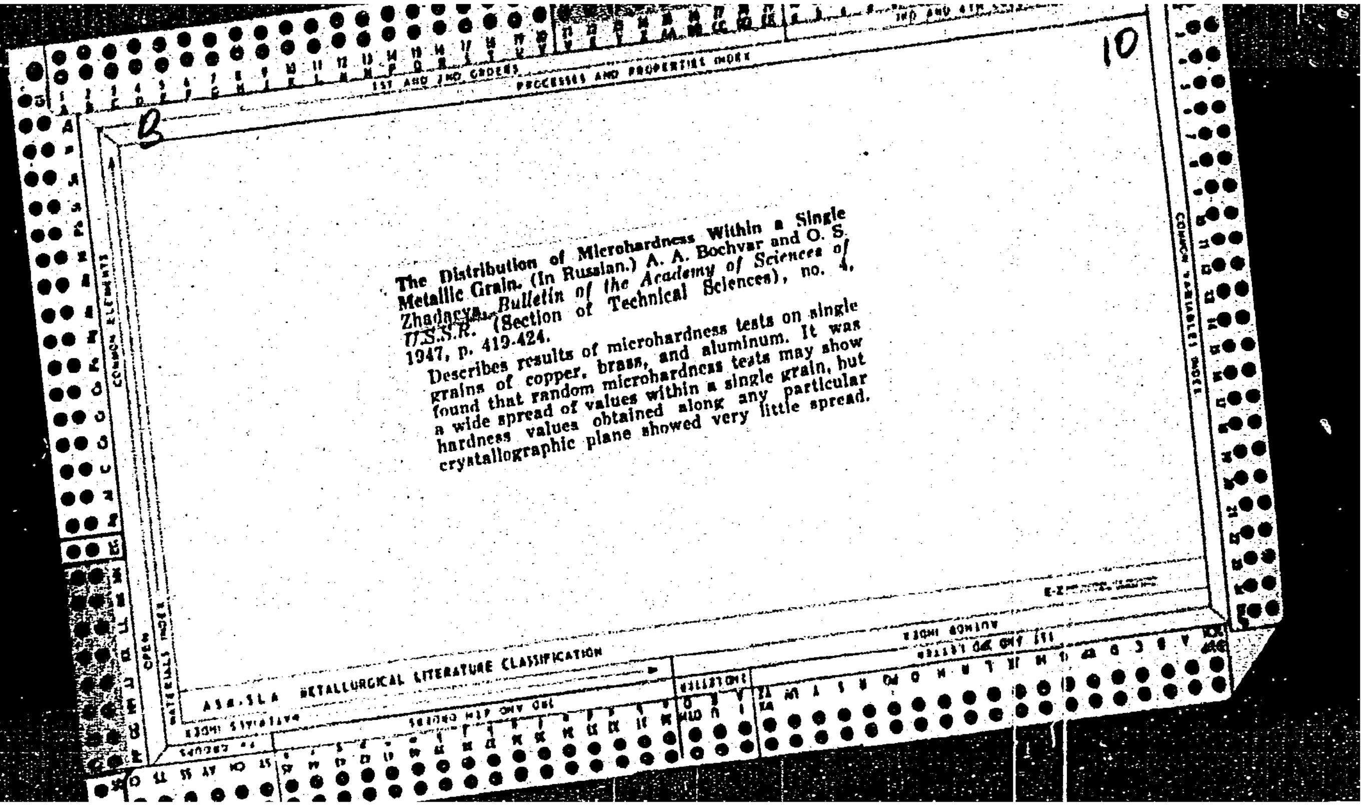
THEORY OF THE SHRINKAGE PHENOMENA IN ALLOYS. A.A. BOCHVAR AND O. S. ZHADAEVA (SBORNIK NAUCH. TRUDOV MOSKOV. INST. TSVET. METALLOV ZOLOTA, 1940 (9), 534-545) (In Russian) An attempt is made to develop a theory of the relationship between linear shrinkage and the alloy composition for various types of binary systems. N.A.

METALLURGICAL LITERATURE CLASSIFICATION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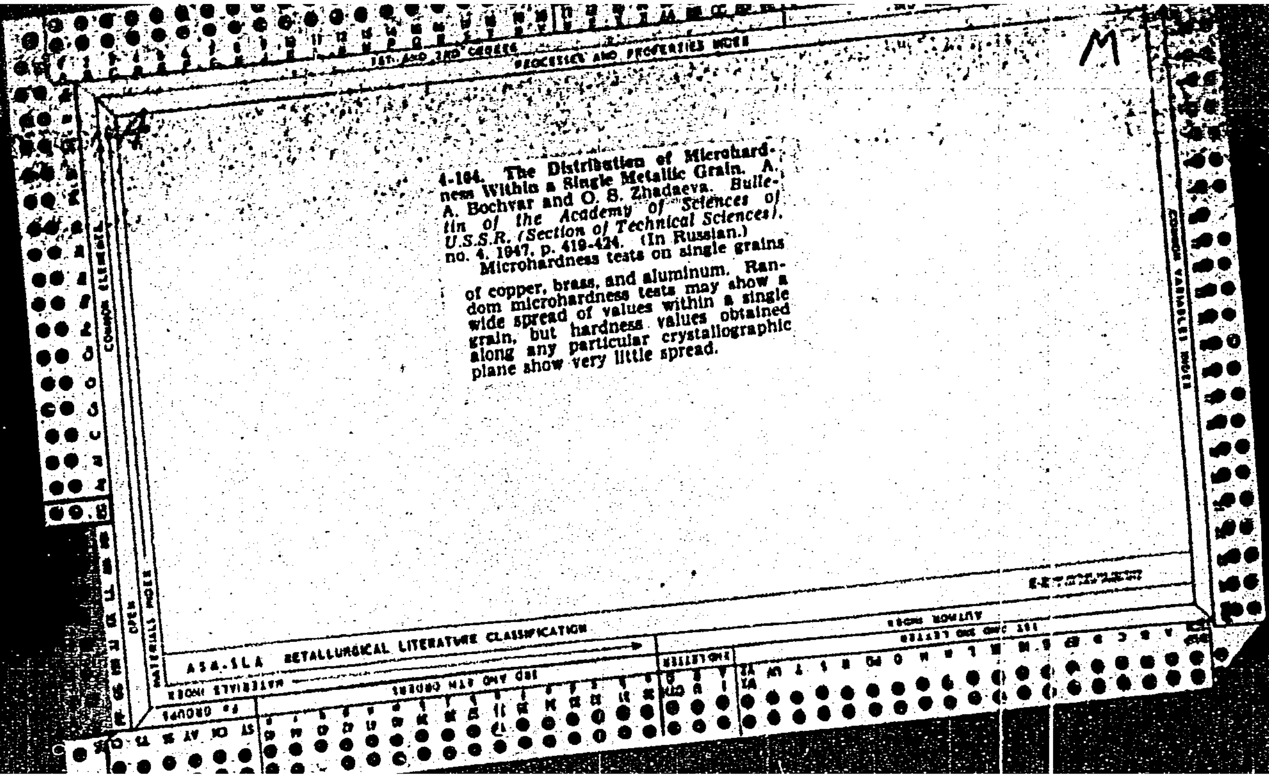
B

The Distribution of Microhardness Within a Single Metallic Grain. (In Russian.) A. A. Bochvar and O. S. Zhadaeva. *Bulletin of the Academy of Sciences of U.S.S.R.* (Section of Technical Sciences), no. 4, 1947, p. 419-424.

Describes results of microhardness tests on single grains of copper, brass, and aluminum. It was found that random microhardness tests may show a wide spread of values within a single grain, but hardness values obtained along any particular crystallographic plane showed very little spread.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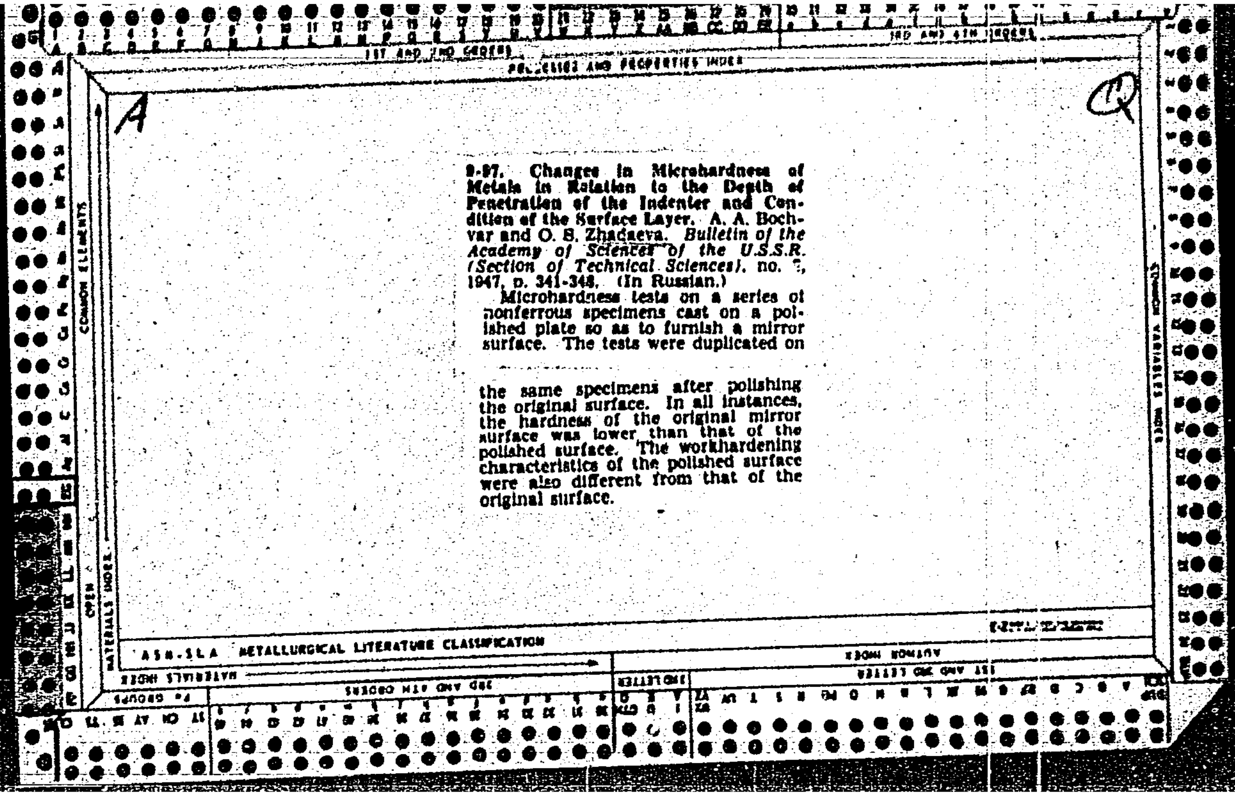
M

4-104. The Distribution of Microhardness Within a Single Metallic Grain. A. A. Bochvar and O. S. Zhadaeva. *Bulletin of the Academy of Sciences of U.S.S.R. (Section of Technical Sciences),* no. 4, 1947, p. 419-424. (In Russian.)

Microhardness tests on single grains of copper, brass, and aluminum. Random microhardness tests may show a wide spread of values within a single grain, but hardness values obtained along any particular crystallographic plane show very little spread.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1ST AND 2ND LETTER

9-97. Changes in Microhardness of Metals in Relation to the Depth of Penetration of the Indenter and Condition of the Surface Layer. A. A. Bochvar and O. S. Zhadaeva. *Bulletin of the Academy of Sciences of the U.S.S.R. (Section of Technical Sciences)*, no. [illegible], 1947, p. 341-348. (In Russian.)

Microhardness tests on a series of nonferrous specimens cast on a polished plate so as to furnish a mirror surface. The tests were duplicated on the same specimens after polishing the original surface. In all instances, the hardness of the original mirror surface was lower than that of the polished surface. The workhardening characteristics of the polished surface were also different from that of the original surface.

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***Micro-Hardness Study of the Structure of Cast Aluminium Copper and Aluminium Silicon Alloys.** A. A. Bochvar and O. S. Zhadaeva (*Izvest. Akad. Nauk S.S.S.R.*, **1945**, [Tekhn.], (10/11), 1089-1092).—[In Russian] It is shown that the hardness of the crystals of primary solid solution in the region of the eutectic is not uniform, but depends on composition. The variation is reduced by homogenization but is not entirely eradicated.—S. A.

A S B - S L A METALLURGICAL LITERATURE CLASSIFICATION

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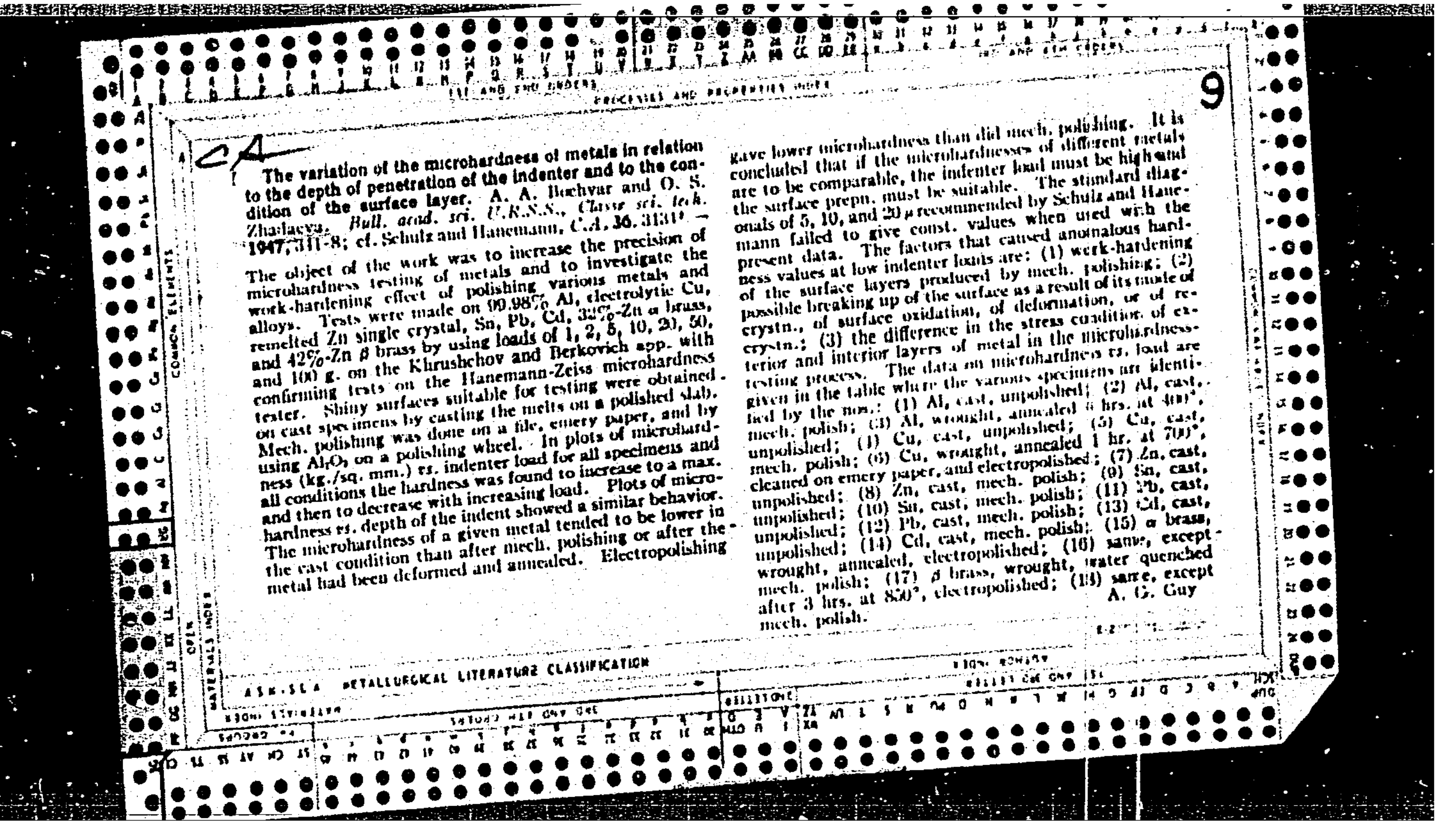
***Microstructure of Hypo-Eutectic and Hyper-Eutectic Alloys of Real Systems.** A. A. Bochvar and O. S. Zhadaeva (*Izvest. Akad. Nauk S.S.S.R.*, **1944**, [Tekhn.], 293-304; *C. Abs.*, 1945, **39**, 2277).—[In Russian.] Alloys of the following systems were studied: aluminium-silicon (unmodified), aluminium-silicon (modified), zinc-cadmium, tin-bismuth, lead-bismuth, and lead-antimony. Similar structures were observed on rapid and on slow cooling of the alloys; on slow cooling, all the structures were more clearly defined. In agreement with Bochvar's theory (*Z. anorg. Chem.*, 1934, **220**, 334; *Met. Abs.*, 1935, **2**, 471) two primary phases in the eutectic-type alloys were observed simultaneously in both the rapidly and the slowly cooled alloys. The minimum total number of primary crystals of both types was observed in the pure eutectic alloy, on both sides of which the number of primary crystals increased sharply at least in one of the phases. Pure eutectic alloys can be regarded as those in which the probability of the formation of primary crystals is the same for both phases. In the hypo-eutectic alloys the possibility of the formation of one phase is greater; in the hyper-eutectic alloys, that of the other. The centres of primary crystallization of both phases are present in both kinds of alloys. The crystallization of one of the primary phases can result in a sharp increase in the possibility of the formation of primary crystals of the second phase. This is connected with the minimum possibility of the formation of primary crystals in pure eutectic alloys. It is supposed that pure eutectic alloys possess a minimum capacity for spontaneous crystallization and a maximum tendency to supercooling.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



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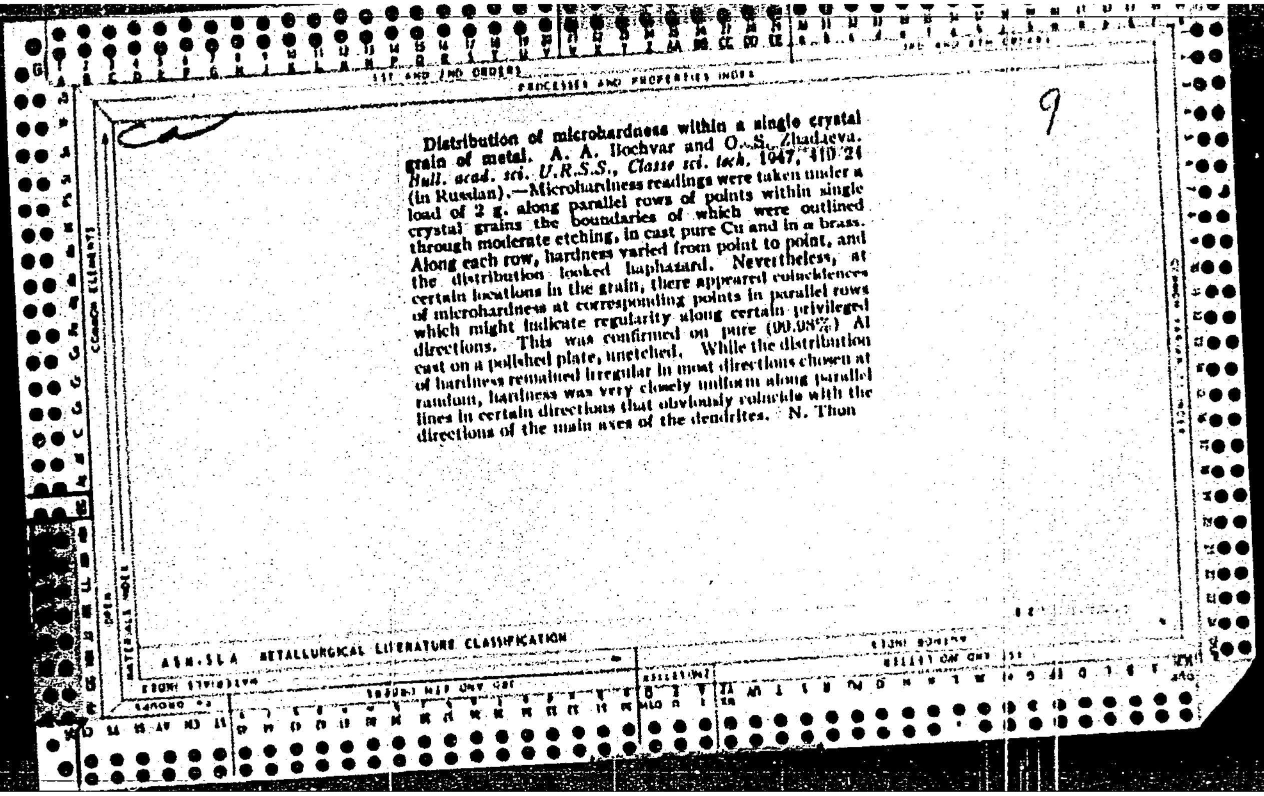
CA

The variation of the microhardness of metals in relation to the depth of penetration of the indenter and to the condition of the surface layer. A. A. Bochvar and O. S. Zhadaeva. *Bull. acad. sci. U.R.S.S., Classe sci. tech.* **1947**, 311-8; cf. Schulz and Hanemann, *C.A.* **36**, 3131⁸.—The object of the work was to increase the precision of microhardness testing of metals and to investigate the work-hardening effect of polishing various metals and alloys. Tests were made on 99.98% Al, electrolytic Cu, remelted Zn single crystal, Sn, Pb, Cd, 32%-Zn α brass, and 42%-Zn β brass by using loads of 1, 2, 5, 10, 20, 50, and 100 g. on the Khrushchov and Berkovich app. with confirming tests on the Hanemann-Zeiss microhardness tester. Shiny surfaces suitable for testing were obtained on cast specimens by casting the melts on a polished slab. Mech. polishing was done on a file, emery paper, and by using Al_2O_3 on a polishing wheel. In plots of microhardness (kg./sq. mm.) *vs.* indenter load for all specimens and all conditions the hardness was found to increase to a max. and then to decrease with increasing load. Plots of microhardness *vs.* depth of the indent showed a similar behavior. The microhardness of a given metal tended to be lower in the cast condition than after mech. polishing or after the metal had been deformed and annealed. Electropolishing gave lower microhardness than did mech. polishing. It is concluded that if the microhardnesses of different metals are to be comparable, the indenter load must be high and the surface prepn. must be suitable. The standard diagonals of 5, 10, and 20 μ recommended by Schulz and Hanemann failed to give const. values when used with the present data. The factors that caused anomalous hardness values at low indenter loads are: (1) work-hardening of the surface layers produced by mech. polishing; (2) possible breaking up of the surface as a result of its mode of crystn., of surface oxidation, of deformation, or of recrystn.; (3) the difference in the stress condition of exterior and interior layers of metal in the microhardness-testing process. The data on microhardness *vs.* load are given in the table where the various specimens are identified by the nos.: (1) Al, cast, unpolished; (2) Al, cast, mech. polish; (3) Al, wrought, annealed 6 hrs. at 400°, unpolished; (4) Cu, cast, unpolished; (5) Cu, cast, mech. polish; (6) Cu, wrought, annealed 1 hr. at 700°, cleaned on emery paper, and electropolished; (7) Zn, cast, unpolished; (8) Zn, cast, mech. polish; (9) Sn, cast, unpolished; (10) Sn, cast, mech. polish; (11) Pb, cast, unpolished; (12) Pb, cast, mech. polish; (13) Cd, cast, unpolished; (14) Cd, cast, mech. polish; (15) α brass, wrought, annealed, electropolished; (16) same, except mech. polish; (17) β brass, wrought, water quenched after 3 hrs. at 850°, electropolished; (18) same, except mech. polish.

A. G. Guy

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION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Distribution of microhardness within a single crystal grain of metal. A. A. Bochvar and O. S. Zhadaeva. *Bull. acad. sci. U.R.S.S., Classe sci. tech.* 1947, 419-24 (in Russian).—Microhardness readings were taken under a load of 2 g. along parallel rows of points within single crystal grains the boundaries of which were outlined through moderate etching, in cast pure Cu and in a brass. Along each row, hardness varied from point to point, and the distribution looked haphazard. Nevertheless, at certain locations in the grain, there appeared coincidences of microhardness at corresponding points in parallel rows which might indicate regularity along certain privileged directions. This was confirmed on pure (99.98%) Al cast on a polished plate, unetched. While the distribution of hardness remained irregular in most directions chosen at random, hardness was very closely uniform along parallel lines in certain directions that obviously coincide with the directions of the main axes of the dendrites. N. Thon

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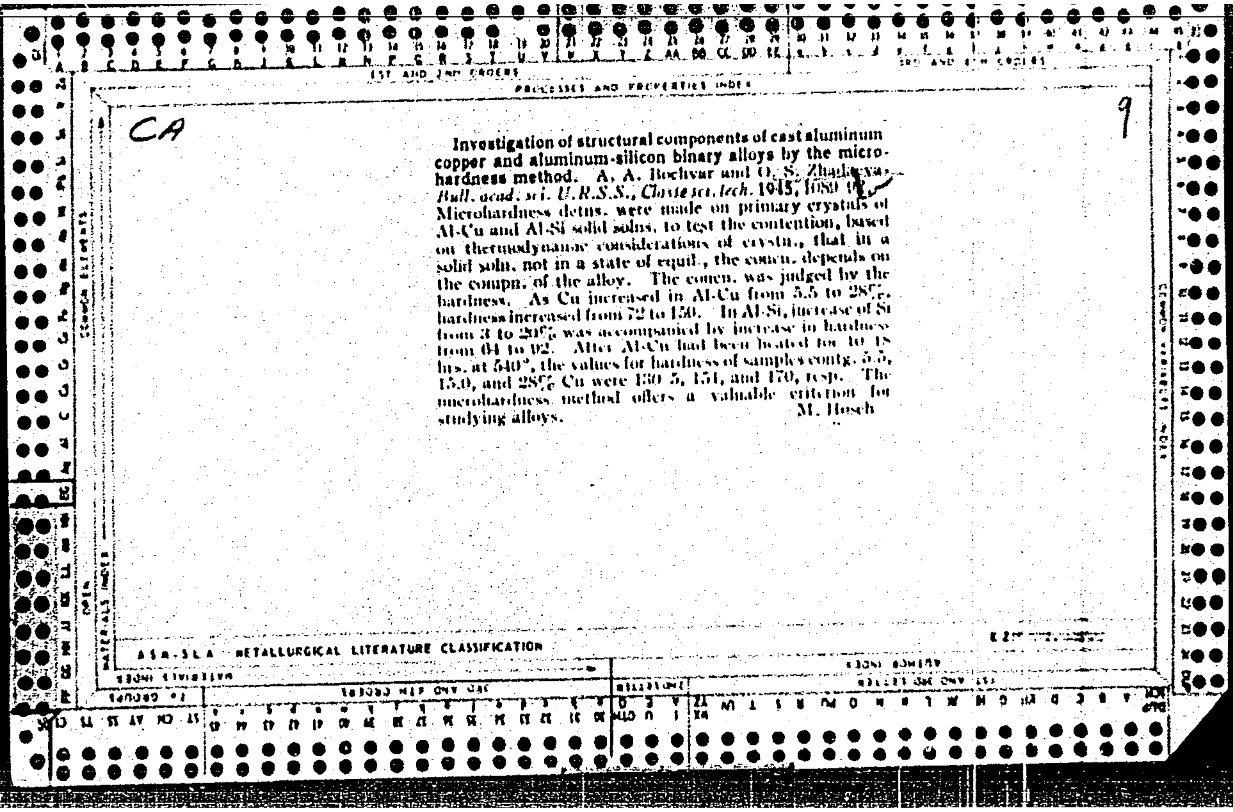
Microstructure of pre-eutectic and post-eutectic alloys of real systems. A. A. Bochvar and O. S. Zhadaeva. *Bull. acad. sci. U.R.S.S., Classe sci. tech.* 1944, 293-304.—Alloys of the following systems were studied: Al-Si (unmodified), Al-Si (modified), Zn-Cd, Sn-Bi, Pb-Bi, and Pb-Sb. Similar structures were observed on rapid and on slow cooling of the alloys; on slow cooling, all the structures were more clearly defined. In agreement with the Bochvar theory (*C.A.* 29, 987^4) 2 primary phases in the eutectic-type alloys were observed simultaneously in both the rapidly and the slowly cooled alloys. The min. total no. of primary crystals of both types was observed in the pure eutectic alloy, on both sides of which the no. of primary crystals increased sharply at least in one of the phases. Pure eutectic alloys can be regarded as those in which the probability of the formation of primary crystals is the same in both phases. In the pre-eutectic alloys the possibility of the formation of one phase is greater; in the post-eutectic alloys, that of the other. The centers of primary crystn. of both phases are present in both kinds of alloys. The crystn. of one of the primary phases can result in a sharp increase in the possibility of the formation of primary crystals of the 2nd phase. This is connected with the min. possibility of the formation of primary crystals in pure eutectic alloys. It is supposed that pure eutectic alloys possess a min. capacity for spontaneous crystn. and a max. tendency for supercooling. Six references.

W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION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9

Investigation of structural components of cast aluminum copper and aluminum-silicon binary alloys by the microhardness method. A. A. Bochvar and O. S. Zhadaeva. *Bull. acad. sci. U.R.S.S., Classe sci. tech.* 1945, 1080. Microhardness detns. were made on primary crystals of Al-Cu and Al-Si solid solns. to test the contention, based on thermodynamic considerations of crystn., that in a solid soln. not in a state of equil., the concn. depends on the compn. of the alloy. The concn. was judged by the hardness. As Cu increased in Al-Cu from 5.5 to 28%, hardness increased from 72 to 150. In Al-Si, increase of Si from 3 to 20% was accompanied by increase in hardness from 64 to 92. After Al-Cu had been heated for 10-18 hrs. at 540°, the values for hardness of samples contg. 5.5, 15.0, and 28% Cu were 130.5, 151, and 170, resp. The microhardness method offers a valuable criterion for studying alloys. M. Hosch

ZHADCHENKO, S.K.

Basic characteristics of a tectonic pattern and prospects for finding oil and gas in Kirov Province. Trudy VNIGNI no.3: 115-120 '63.

(MIRA 17:9)

MYSHKIN, K.I., dotsent (Saratov, ul.Radishcheva, d.35,kv. 7); ZHADENOV, I.I.; MOTORIN, L.V.

Causes of motorcycle injuries and their analysis. Ortop., travm. i protez. 26 no.3:40-44 Mr '65. (MIRA 18:7)

1. Iz kafedry gospital'noy khirurgii (zav. - doktor med. nauk G.N.Zakharova) Saratovskogo meditsinskogo instituta.

MYSHKIN, K. I., dotsent; ZHADENOV, I. I.

Nitrous oxide anesthesia using muscle relaxants in operations on the thyroid gland. Khirurgiia no.4:68-74 '62. (MIRA 15:6)

1. Iz kafedry gospital'noy khirurgii (zav. - dotsent G. N. Zakharova) lechebnogo fakul'teta Saratovskogo meditsinskogo instituta.

(THYROID GLAND—SURGERY) (MUSCLE RELAXANTS)
(NITROUS OXIDE)

ZHADEYKAYTE, I.Yu., Cand Tech Sci -- (diss) "On the problem of the nappiness of carded fabrics ~~cloths~~." Kaunas, 1958, 23 pp with illustrations (Min of Higher Education USSR. Kaunas Polytechnic Inst) 130 copies (KL, 23-58, 106)

ZHADIN, G.P., dotsent, kand.tekhn.nauk; TROYANSKIY, N.S., starshiy prepodavatel'; YUNUSOV, F.S., kand.tekhn.nauk

Calculating the angle of shift of a machined part for a line for the LSh-1 machine tools. Izv.vys.ucheb.zav.;mashinostr. no.9:136-171 '60. (MIRA 13:11)

1. Kazanskiy aviatsionnyy institut.
(Metal cutting)

FIGARO, Valentin Petrovich, kand. tekhn. nauk; ZHADIN, G.P., dots., retsenzent; BUMSHTEYN, S.I., inzh., red.; ANIKINA, M.S., red.izd-va; KARPOV, I.I., tekhn. red.

[Fundamentals of the design of technological processes and attachments; methods for machining surfaces] Osnovy proektirovaniia tekhnologicheskikh protsessov i prisposoblenii; metody obrabotki poverkhnostei. Moskva, Oborongiz, 1963. 531 p. (MIRA 16:5)

1. Zaveduyushchiy kafedroy "Proizvodstvo aviadvigateley" Kuybyshevskogo aviatsionnogo instituta (for Zhadin).
(Machinery industry) (Metal cutting)
(Machine tool--Attachments)

L 14534-66 EWT(1)/EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b) [illegible]

ACC NR: AT6003154 SOURCE CODE: UR/2529/64/000/084/0074/0084

AUTHORS: Smolentsev, V. P.; Zhadin, G. P. (Docent) 41

ORG: Kazan Aviation Institute (Kazanskiy aviatsionnyy institut) B+1

TITLE: Preparing precision hard-alloy cutting dies with an unshaped electrode

SOURCE: Kazan. Aviatsionnyy institut. Trudy, no. 84, 1964. Aviatsionnaya tekhnologiya i organizatsiya proizvodstva (Aviation technology and production management), 74-84

TOPIC TAGS: electroerosion machining, die, alloy, wire, brass, electrode / VK-20 alloy

ABSTRACT: A method for shaping hard-alloy dies with an unshaped wire electrode is proposed. The results of studies for designing and making patterns for hard alloy VK-20 are given. The work was done to simplify tool electrodes. The linear dimensions of the pattern must differ from those of the part (see Fig. 1) as follows:

$$A_p = A_d \pm [2(a + R_1 + T) + \delta_p + \delta_g + \delta_x],$$

where A_p is the dimension of the pattern on the die; A_d the corresponding dimension of the die part; a the side clearance between wire tool and part; δ_p the linear

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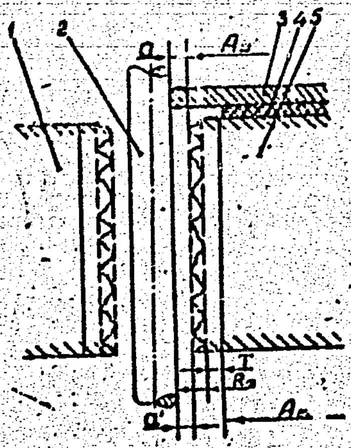

Fig. 1. 1 - Waste; 2 - wire electrode; 3 - pattern; 4 - insulating insert; 5 - part.

error of the pattern at radius R; R_z the height of the unevenness; T the depth of changed layer; δ_s the error of setting the pattern on the part and the part in the lathe; and δ_l the error caused by inaccuracy of the lathe. An allowance for finishing of 14.4 μ is found. Smaller wire diameters are found to provide better surface smoothness. The method provides accurate and uniform distribution of the gap

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ACC NR: AT6003154

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between the cutting elements of the die, and there is good agreement between the calculated and experimental results. Orig. art. has: 3 diagrams, 3 graphs, 13 formulas, and 1 table.

SUB CODE: 13/ SUBM DATE: 01Oct63

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ZHADIN, G.P.

An error in the relative measurement of a noncircular profile.
Trudy KAI no.70:39-44 '62. (MIRA 18:4)

ZHADIN, G.P.; KORCHAGIN, G.N.

Cutting forces in machining noncircular form surfaces on lathes.
Trudy KAI no.70:45-51 '62. (MIRA 18:4)

YUNUSOV, F.S.; ZHADIN, G.P.

Calculating technological values of the "line method" of machining three-dimensional shaped surfaces. Izv.vys.ucheb.zav.; av.tekh. 3 no.3:135-143 '60. (MIRA 13:10)

1. Kazanskiy aviatsionnyy institut. Kafedra proizvodstva aviadvigateley.

(Metal cutting)

ZHADIN, G.P.

Machining noncircular form sufaces on lathes. Trudy KAI 29:197-208 '55. (MLRA 10:6)

(Metal cutting)

ZHADENOV, N., gvardii mayor.

Approach to target at a specific time by the method of changing speeds. Vest.Vozd.Fl. 34 no.11:49-52 N '51. (MLRA 8:3)
(Bombing, Aerial)

ZHADIN, B. F.

"Origin of the Balkhash Perch (Perca Schrenki Kessl.)

Dok. AN, 66, No. 3, 1949.

GOL'DMAN, A.M., kand.khimicheskikh nauk; ZAYTSEV, A.I.; KOSTYLEV, G.I.;
LAKHMANCHUK, L.S.; LUBYANITSKIY, I.Ya., kand.khimicheskikh nauk;
PREOBRAZHENSKIY, V.A.; FURMAN, M.S., doktor khimicheskikh nauk;
Prinimali uchastiye: ZHADIN, B.V.; VESEL'CHAKOVA, T.L.; SEDOVA, S.M.;
TRUBNIKOVA, V.I.; KUPIN, M.I.; ZHUKOVA, Ye.I.

Preparation of adipic acid in a continuous pilot unit.
Khim.prom. no.5:323-327 My '62. (MIRA 15:7)
(Adipic acid)

YEVSTIGNEYEV, M.I., dots.; MOROZOV, I.A., dots.; PODZEY, A.V.,
prof.; SULIMA, A.M., dots.; TSUKANOV, I.S., dots.;
ZHADIN, G.P., dots., retsenzent; KOLOSOV, M.A., inzh.,
red.

[Manufacture of basic parts and units of airplane engine]
Izgotovlenie osnovnykh detalei i uzlov aviadvigatelei.
[By] M.I.Evstigneev i dr. Moskva, Mashinostroenie, 1964.
456 p. (MIRA 17:9)

ACCESSION NR: AR4014556 S/0276/63/000/012/B099/B099

SOURCE: RZh. Tekhnologiya mashinostroyeniya, Abs. 12B656

AUTHOR: Zhadin, G. P.; Korchagin, G. N.

TITLE: Cutting force during turning of non-circular profiled surfaces

CITED SOURCE: Tr. Kazansk. aviats. in-ta, vy*p. 70, 1962, 45-51

TOPIC TAGS: copying lathe, duplicating lathe, metal turning, threading lathe, screw cutting lathe, cutting force, machine tool, duplicating machine tool, copying machine tool, cutting force determination

TRANSLATION: During turning of profiled surfaces on special copying lathes with duplicating mechanisms, the components of the cutting force, P_y and P_z, change continuously in dependence on the profile of the article being turned. Elicitation of the law to which the change in components of the cutting force conforms during turning of non-circular profiled surfaces was carried out on a screw-cutting lathe (height of centers 300 mm, distance between centers 1500 mm) equipped with duplicating mechanism. The back of the working blade for a gas turbine was

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ACCESSION NR: AR4014556

truned. A special 3-component dynamometer with cutter ($r = 8$ mm, $\gamma = 0°$, $\alpha = 25°$, $\beta = 65°$) was mounted in the tool holder of the duplicating mechanism. The relationship of the angle γ and the coefficients K_y and K_z which express the effect of the angle γ on the cutting force components P_y and P_z was found experimentally. On the basis of the experiments which were carried out, the conclusion is drawn that the actual values of the components P_y and P_z may be determined by known formulas from cutting theory with the introduction into them of the corresponding correction coefficients K_y and K_z. The calculation formula of the actual cutting force components during non-circular profile turning has the form: $P_{z\ ncp} = K_z C_1 t^{x1} \cdot S^{y1} \cdot H_B^{n1}$. Ill., 5. A Avakov.

DATE ACQ: 09Jan64 SUB CODE: ML, IE ENCL: 00

Card 2/2

BELIKOV, Vasiliy Nikolayevich; NIKITIN, Aleksandr Nikitich;
ZHADIN, G.P., dots., retsenzent; KOLOSOV, M.A., inzh.
red.; VILLER, G.L., red.

[Assembly of airplane engines] Sborka aviatsionnykh dvigatelei. Moskva, Mashinostroenie, 1964. 221 p.
(MIRA 17:8)

BEKIROV, Ya.A., inzh.; ZHADIN, G.P., kand.tekhn.nauk, dotsent

Some characteristics of the grinding of noncircular parts.
Vest.mashinostr. 42 no.9:70-72 S '62. (MIRA 15:9)
(Grinding and polishing)

84059

S/147/60/000/003/018/018
E191/E481

18.5200 2308, 1045
1.1100 2208.

AUTHORS: Yunusov, F.S. and Zhadin, G.P.

TITLE: Computation of the Setting Up Dimensions in the Strip Method of Machining Double Curvature Surfaces

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Aviatsionnaya tekhnika, 1960, No.3, pp.135-143

TEXT: Previously (Trudy KAI, Issue 41, Kazan, 1958), the senior author proposed a procedure for computing the machining dimensions for the strip method of milling of surfaces defined by coordinate points in reference cross-sections. In the present paper, a single computation procedure is presented applicable to intermediate and finish machining operations. The surface has one cross-section with the largest curvature, which is found by comparing all given parallel cross-sections. When the curve is replaced by a broken line deviating from it within the given tolerances, the equations of equi-distant curves separated from the nominal curve by the amount of the upper and lower limit deviations must be known. An allowance is defined which contains the allowances for subsequent operations, errors of shape, setting up errors and other manufacturing errors. In intermediate operations, this quantity is

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E191/E481

Computation of the Setting Up Dimensions in the Strip Method of Machining Double Curvature Surfaces

added in the direction of increasing size to the lower and upper limit curves. In the finish machining operation, the appropriate value of this quantity is struck in the direction of reducing the size from the upper limit curve. The so-called reference deviations are the result of adding (each with its appropriate sign) the upper or lower tolerance and the allowance quantity. An analysis is given leading to the computation of various machining dimensions when a given double curvature surface has to be machined within a given tolerance. First, the given curve is replaced by a broken line consisting of equal length sections. Then the method is extended to the case of a broken line with unequal lengths of its sections. It is stated that the proposed method of computation was tested experimentally under workshop conditions in its application to the machining of blades of a production aviation turbine. It is claimed that the machine time was reduced by 60% due to a reduction in the number of passes and the elimination of a turning operation (thus also saving the tooling up of a copying lathe). A numerical example is given in which the

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Computation of the Setting Up Dimensions in the Strip Method of Machining Double Curvature Surfaces

number of strips (passes), the width of the strip, the distances between tracer rollers and the diameter of the tracer roller are computed for the aerofoil part of a gas turbine blade, specified by coordinate points in reference cross-sections in terms of a rectangular coordinate frame. For surfaces with a convex longitudinal cross-section, the limit should be given in terms of minimum metal and for surfaces with a concave longitudinal cross-section, in terms of maximum metal. There are 4 figures, 1 table and 3 Soviet references.

ASSOCIATION: Kazanskiy aviatsionnyy institut Kafedra proizvodstva aviadvigateley (Kazan Aviation Institute, Chair of Aircraft Production)

SUBMITTED: May, 4, 1960

Card 3/3

30258
S/145/60/000/009/014/017
D221/D304

1.1100

AUTHORS: Zhadin, G.P., Candidate of Technical Sciences, Docent, Troyanskiy, N.S., Senior Instructor and Yunusov, F.S., Candidate of Technical Sciences

TITLE: Calculation of angle of rotation of the workpiece in a pass for machine tools, type ЛШ-1 (LSh-1)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Mashinostroyeniye, no. 9, 1960, 136 - 141

TEXT: When machining of non-circular surfaces by longitudinal passes, feed is ensured either by parallel motion to one of the axes of coordinates, or by rotation around the axis of holder. In the first arrangement, machining is based on the composition of three simultaneous elementary motions. One determines the speed of machining, the second - the feed, and the third forms the tracer feed which is determined by the template. Each of these motions is simple in itself, whereas the resulting displacement is involved. These machine tools are usually provided with a constant feed per

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Calculation of angle of ...

pass which reduces their efficiency, but allows, however, the use of one template (cam) only. The maximum angle of rise in the profile of workpiece is taken as a base to ensure machining within the allowed limit. Similarly, in the case of machines with rotary feed (Fig. 2), the magnitude of angle α of rotation around axis of holder should be set over the most distant part of the surface. The template is placed on the common horizontal axis z to ensure the production of specified form of the workpiece 1. The former is in permanent contact with tracer follower, and executes together with it a reciprocating motion. To determine α it is necessary to have two positions of cutting tool at a distance which would ensure that roughness between passes would not exceed the allowance δ. The author then gives a mathematical analysis which results in a graph relating α and the diameter of tool d, radius of rotation ρ and δ. Consequently, when the latter quantities are specified, it is possible to determine the angle of rotation per pass α, when machining discrepancies will not exceed the allowed limit. The choice of two extreme sections is due to the usual specification of calculated sections for involved surfaces, such as gas turbine

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SMOLENTSEV, V.P.; ZHADIN, G.P.

Using u-shaped electrodes in manufacturing hard-alloy precision punching dies. Trudy KAI no.84:74-84 '64.

(MIRA 18:10)

L 45595-66 EWT(d)/EWT(1)/EWT(m)/EWP(c)/EWP(v)/T/EWP(k)/EWP(1) IJP(c) JD

ACC NR: AT6014326 SOURCE CODE: UR/2529/62/000/070/0039/0044

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B+1

AUTHOR: Zhadin, G. P. (Candidate of technical sciences, Lecturer)

ORG: None

TITLE: On an error in relative measurement of a noncircular profile AW

SOURCE: Kazan. Aviatsionnyy institut. Trudy, no. 70, 1962. Aviatsionnaya tekhnologiya i organizatsiya proizvodstva (Aviation engineering and organization of production), 39-44

TOPIC TAGS: quality control, 4 error correction, measuring instrument, MECHANICAL ENGINEERING, PRODUCTION ENGINEERING

ABSTRACT: The author considers a problem relating to inspection of noncircular profiles and applicable to finishing operations. If relative measurement of radius vector of any noncircular profile is done with respect to the angle of turn of the profile using a measuring instrument in which motion of the shoe is registered by a needle on a divided scale (e. g. dial indicators), then an error is unavoidably introduced in all cases where the direction of motion of the shoe does not coincide with the normal to the profile. This error takes on various numerical values depending on the geometry of the profile being measured, the position of the pole of the radius vector and the length of the shoe radius. In many cases this error cannot be disregarded. This method of relative measurement of the radius vector for the profile is done by addi-

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tion or subtraction of the instrument readings (depending on sign) and the numerical value of the initial radius vector. The method of the pattern of small displacements is used for derivation of a simple formula to determine the error in relative measurement of the radius vector introduced by deviation in the direction of motion of the shoe from the normal to the profile. Orig. art. has: 4 figures, 10 formulas.

SUB CODE: 13/ SUBM DATE: 15May61

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L 45598-66 EWT(d)/EWT(1)/EWT(m)/EWP(w)/EWP(v)/EWP(t)/ETI/EWP(k)/EWP(h)/EWP(1)

ACC NR: AT6014327 IJP(c) JD/EM SOURCE CODE: UR/2529/62/000/070/0045/0051 57

B+1

AUTHOR: Zhadin, G. P. (Candidate of technical sciences, Lecturer); Korchagin, G. N.

ORG: None

TITLE: Cutting forces in turning noncircular surfaces 18

SOURCE: Kazan. Aviatsionnyy institut. Trudy, no. 70, 1962. Aviatsionnaya tekhnologiya i organizatsiya proizvodstva (Aviation engineering and organization of production), 45-51

TOPIC TAGS: lathe, pressure measuring instrument, cutting tool, oscillograph, METAL CUTTING, STRESS ANALYSIS 14

ABSTRACT: The authors study the irregularities in the variation of cutting stress components during turning of noncircular surfaces. This was done experimentally on a screw cutting lathe with a 300 mm swing and 1500 mm between centers. The unit was equipped with a copying device. The part machined during the experiment was the back of a gas turbine working blade. A three-component dynamometer was fixed to the copying tool post. The dimensions of the cutter are given along with a diagram 16 of the 14 copying device and tool post. All measurements were recorded by the MPO-2 27 loop oscillograph. 10 The results show that cutting stress is a function of rake variation. A graph is given showing the relationship between rake and factors describing the effect of the rake on cutting force components. The experimental data show that this rela-

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ACC NR: AT6014327

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tionship can be determined by cutting theory formulas. The results show that it is not difficult to determine the cutting stress components parallel and perpendicular to the transverse motion of the cutting tool. Orig. art. has: 5 figures, 2 formulas.

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